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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/828,986

04/20/2004

Michael T. Barrett

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EXAMINER

SHAW, AMANDA MARIE

ART UNIT

PAPER NUMBER

1634

MAIL DATE

DELIVERY MODE

05/23/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/828,986

Applicant(s)

BARRETT ET AL.

Examiner

Amanda M. Shaw

Art Unit

1634

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 5/7/2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet. (See 37 CFR 1.116 and 41.33(a)).

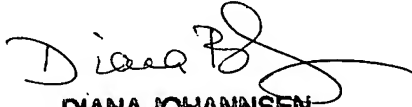
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☒ Applicant's reply has overcome the following rejection(s): See Continuation Sheet.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: none.
Claim(s) objected to: none.
Claim(s) rejected: 1-6, 25-29 and 34.
Claim(s) withdrawn from consideration: 7-24, 30 and 31.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____
13. ☐ Other: _____


**DIANA JOHANNSEN
PRIMARY EXAMINER**

Continuation of 3. NOTE: The proposed amendments made to the claims raise new issues because the scope of the claims has changed. Previously the claims were drawn to a CpG unstructured nucleic acid which hybridizes under "stringent hybridization conditions". However now the claims are drawn to a CpG unstructured nucleic acid which hybridizes under "stringent assay conditions". The specification teaches on page 8 that the term "stringent assay conditions" refers to the combination of hybridization and wash conditions. Until now the claims have not required any wash conditions. Therefore these amendments would necessitate a new search and further consideration.

Continuation of 5. Applicant's reply has overcome the following rejection(s): In the instant case the Applicants arguments have overcome the new matter rejections made over claims 1-6 and the 103 rejections over Huang et al in view of Sampson and Hunag et al in view of Sampson and in further view of Ahern.

Continuation of 11. does NOT place the application in condition for allowance because: With regard to the arguments in the response filed 5/7/2007 Applicants did not address the 112 2nd paragraph rejection stating that the phrase "A CpG unstructured nucleic acid oligonucleotide containing at least one UNA which hybridizes..." is indefinite. This phrase was considered indefinite because it was unclear if any portion of the CpG UNA can hybridize to the CpG site or if the actual UNA nucleotide has to hybridize to the CpG site. Additionally the Applicants have amended the claims to no longer recite the phrase "stringent hybridization". If this amendment had been entered the rejection over the phrase "stringent hybridization" would be dropped.

Regarding the 103 rejections over Huang et al in view of Kutyavin et al the applicants have argued that there is no motivation to combine these references. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Huang et al teaches an array of CpG dinucleotide rich probes. Kutyavin et al teach that it is well known that oligonucleotides do not readily hybridize to complementary sequences in double stranded DNA or in DNA or RNA secondary structure. Therefore Kutyavin et al proposes nucleic acid probes which contain modified bases wherein the modified base forms a stable bond with its natural base partner but does not form a stable bond with its modified base partner. Thus the presence of the modified bases in the oligonucleotide probes is beneficial because it prevents the probes from binding to each other and prevents secondary structures from forming. One would have been motivated to make an array using probes with modified bases as suggested by Kutyavin in order to achieve the benefit of using an array in which the probes are more available for hybridizing to the target since they can not bind to each other or form secondary structures.